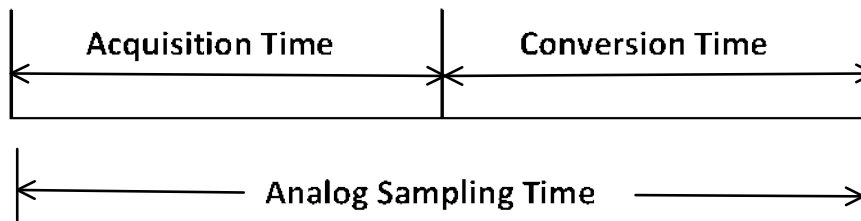


# Lecture 23 - Configuring the ADC

Tuesday, April 28, 2020 11:03 AM

Objectives:	<ul style="list-style-type: none"><li>- Review the operation of flash and successive approximation ADCs</li><li>- Learn about the configuration of the ADC circuitry</li><li>- Learn how to configure the ADC</li><li>- Review considerations of using analog signals on MX7</li></ul>
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## Configuring the ADC

1. Configure the analog port pins - **AD1PCFG**
2. Select analog inputs to ADC multiplexers - **AD1CHS**
3. Select the format of the ADC result - `form<2:0>` - **AD1CON1**
4. Select the sample clock source - `ssrc<2..0>` - **AD1CON1**
5. Select the voltage reference source - `vcfg<2..0>` - **AD1CON2**
6. Select the scan mode - `cscna` - **AD1CON2**
7. Set the number of conversions per interrupt (if used) - `smp<3:0>` - **AD1CON2**
8. Set buffer fill mode - `bufm` - **AD1CON2**
9. Select MUX to be connected to ADC - `acts` - **AD1CON2**
10. Select the ADC clock source - `adrc` - **AD1CON3**
11. Select the sample time (if auto convert used) - `samc<4::0>` - **AD1CON3**
12. Select the ADC clock pre-scaler - `adcs<7:0>` - **AD1CON3**
13. Turn the ADC module on - **AD1CON1**